

Abstract

To more surely detect the presence/absence of the rotation of a step motor with a simple structure. In a first detection period immediately after stopping driving of the motor, transistors turn on, the on/off operation of a transistor is controlled at a given frequency, and a detection signal generated in a resistor is taken out from a terminal. Because a current flows in an opposite direction of an equivalent diode of the transistor, the detection signal in the case where the motor does not rotate is suppressed to a low voltage that is equal to or lower than a threshold value. In a second detection period immediately after lapse of the first detection period, the transistors turn on, the on/off operation of the transistor is controlled at a given frequency, and a detection signal generated in a resistor is taken out from the terminal. In the second detection period, because a current flows in a forward direction of an equivalent diode of the transistor, the detection signal is generated without being limited, and the detection signal of a high and stable voltage is obtained in accordance with the rotation of the motor.